

# Summary

## **More juvenile suspects of crime, but why?**

*A study of the relationship between societal developments and changes in the number of juvenile suspects of offences in the period of 1997-2007*

### **Introduction**

In the period of 1997-2007, the increase in the number of juvenile suspects aged between 12 to 25 years of age was stronger than in the number of suspects of 25 years of age and older. The increase occurred both in the absolute number of juvenile suspects and in the number of suspects accounted for changes in the population of young people in the Netherlands. After a considerable increase in the number of juvenile suspects in the eighties and nineties, the number of juvenile suspects of an offence remained stable in the period between 1997 and 2000, but increased again after 2001. In particular, the number of aggression-related crimes among juvenile suspects increased considerably. For example, crimes like threat, abuse, vandalism, and disturbance of public order among juvenile suspects increased. A comparable upward trend was observed for drinking and driving. In the same period, property crimes or drug-related offences among juvenile suspects showed a cyclic trend. In the period of 1997-2000, the number decreased, however, between 2001 and 2004/2005, property crime rates and drug-related crime rates among juvenile suspects increased once again, followed by another decrease in the following years.

It is possible that the number of juvenile suspects of offences changed, because the actual committed offences by juvenile suspects changed. This we do not know due to biases in the instruments to measure crime among juveniles. Population-based victimization surveys showed a downward trend in the proportion of victims of an offence the years preceding 2007, irrespective of the type of offence. The decrease in victims of offences (for the time being until 2007) did not correspond to the increase in the number of juvenile suspects. In this study, we did not examine contradicting results of different sources measuring crime. Various other studies have been conducted into this topic. We based our study on the data on arrested juvenile suspects and on the offences of which young people were suspected as registered by the police. We examined which societal developments did or did not constitute a plausible explanation for the developments in the number of juvenile suspects of offences.

The fact that the number of juvenile suspects has increased may not be very surprising for many of us. The topic that 'things are getting worse and worse with "today's youth" and that "things are going from bad to worse"' is fre-

quently covered by the media. At parties and social gatherings, the explanations for this phenomenon vary: from opinions about judges who tend to impose increasingly lighter punishments, to police officers who are not visible in the streets or hardly ever intervene, or from an increase in the number of uncooperative young people of non-native origin who do not have a meaningful way of spending their days, and increasingly inadequate supervision of teenagers, to the alarming alcohol use among today's youth.

The scientific literature also suggests various explanations for the changes in the number of juvenile suspects of criminal behaviour. One frequently given explanation is that policy attention to juvenile crime increased and that the prosecution of juvenile offenders by the police was given higher priority in the past years. This is a plausible explanation. International studies have shown, however, that it is unlikely that changes in registered crime or in the population of suspects result from a single cause. We therefore examined whether there were also demographic, social, or economic changes in addition to changes in law enforcement that could provide an additional explanation for the increase in the number of juvenile suspects in the Netherlands.

### **Research question and research method**

The research question to be answered is as follows: What developments at the macro level are related to the developments in the number of juvenile suspects in the age of 12 to 25 years of age and the offences of which they were suspected in the period of 1997-2007?

We examined whether there were any developments over time at the macro level which could provide an explanation for the trends in the number of juvenile suspects. In this context, the macro factors concerned relate to the following:

- law enforcement, such as police capacity or the number of juvenile detention sentences imposed;
- demography, such as the number of young men, or youngsters of non-Western origin;
- social situation, such as substance use among young people or informal social control;
- economic circumstances, such as youth unemployment or educational level.

The study consisted of two parts. Firstly, we reviewed the international literature. We selected literature which showed that the crime rates were influenced by a macro factor over time, or that it was at least related to developments in crime, while also taking account of other relevant developments.

The strongest evidence of a macro factor having an effect on changes in the crime rates are provided by studies with an (quasi-)experimental design. These types of studies are rare, though, both at the national and international level. We focussed on studies analysing a natural experiment. Another option, although not methodologically equivalent, is the use of trend studies analysing panel data. These studies provide the opportunity of demonstrating a relationship between macro factors and developments in crime, while taking account of other developments at the local level or otherwise. Whether or not a macro factor also effect changes in crime rates could not be established with certainty, partly because unmeasured factors might have been involved.

The findings from the literature reviewed are based in particular on international studies (both American and Western European) analysing panel data and/or natural experiments. These results could not be translated into the Dutch situation just like that. This is why we also conducted an empirical study into the situation in the Netherlands in the period of 1997-2007. We searched for relevant developments at the national level which corresponded with the increase in the number of juvenile suspects or the changes in the number of offences of which young people were suspected. By comparing time series, it is not possible to demonstrate an effect of a macro factor on the number of suspects or to show a relationship between a macro factor and the number of suspects. Comparison of time series, however, provide a first indication of a possible association between a macro factor and changes in the number of juvenile suspects. Such a comparison may also reveal that some changes on the macro level over time are less plausible as an explanation.

The study aimed to distinguish certain macro factors that could provide a possible explanation for the developments in registered juvenile crime rates on macro level. This means that we reviewed studies that examined developments in neighbourhoods, cities and towns, regions, or countries. An important limitation of a study at the macro level is that effects at the subordinate levels may be hidden. This study does not focus on the effects of factors on individual criminal behaviour (the micro level), neither does it focus on the effects of interventions on the number of juvenile suspects or on juvenile crime.

### **Findings from the literature**

#### *Do changes in the crime rates result from a single cause?*

It is unlikely that developments in crime result from a single cause at the macro level. The developments in crime rates that occurred at the macro level were the result of an accumulation of changes in macro factors in time.

These changes may be related to economic circumstances, such as unemployment, the minimum wage amount, or educational level. Factors in the area of law enforcement were also found to influence the crime rates, including factors such as selective imprisonment and increasing police levels focussed on high risk areas, times or offenders. Less is known about the effects of demographic and social developments on developments in crime.

*Do economic circumstances effect changes in crime rates?*

Changes in unemployment or minimum wage at macro level were found to be followed by changes in property crime rates. This effect was, however, only found if the economic changes occurred among marginalised groups in society, such as less qualified or unskilled young people. A possible explanation is that unemployed young people have the opportunity of committing offences and that property crimes are an alternative or additional source of income. As young people have less to lose, the chance of them turning to activities involving the committing of such offences increases. We did not find indications that the above-mentioned economic circumstances effected violent crime rates.

*Does education effect crime rates?*

Education appeared to have an effect on the crime rates both in the short term and in the long term. In the short term, attending an educational course may have both a reducing effect and a stimulating effect on crime rates. An increase in the duration of the educational courses provided to young people is associated with decreasing property crime rates, because young people attending school are 'incapacitated' at school and are supervised. On the other hand, however, the duration of educational courses provided to young people may also result in more interactions among students. This may cause interpersonal conflicts, which may increase the risk of violent offences. In the long term, an increase in the educational level is associated with a decrease in the crime rates at the macro level.

*Does stricter law enforcement effect crime rates?*

In the literature reviewed, we came across different perspectives. On the one hand, there is the perspective that stricter law enforcement – such as higher police levels or more prison sentences – would result in a lower crime rate. This is said to be caused by the fact that the offenders are incapacitated, or due to the deterrent effect of punishment. On the other hand, there is the perspective that stricter law enforcement would hardly have any effect, if at all, on real crime, but that it would mainly push up the crime rates and the number of suspects registered by the police. The reasoning behind this perspective is that if more attention is paid to, for instance, young people or chronic offenders, to specific situations or specific types of crime, such as

violent offences, the registered crime and the number of suspects of offences will only increase.

Empirical studies revealed that stricter law enforcement – in terms of increased police levels in the streets, or imprisonment – would in particular be effective if focussed or used selectively. An increase in police levels aimed at crime-control efforts in high-risk situations or times, or directed at high-risk groups, results in a greater risk of catching offenders. Because high risk situations, times or groups are concerned the effect of additional police levels used for crime-control efforts was reflected in a decrease in the crime rates at the macro level. An increase in the number of imprisonments furthermore appeared to decrease in property crime rates, but the effect was mainly found when it concerned selective imprisonment of the group of chronic offenders. A deterrent effect – in order to prevent recidivism or to prevent other people from committing offences – was not demonstrated in the studies; this effect was not seen in respect of police levels, nor was it demonstrated in respect of selective imprisonment.

*Do changes in economic circumstances or law enforcement factors have any general or specific effects?*

The effects of economic circumstances and stricter law enforcement on crime rates appeared to occur in particular among specific groups or in specific situations with high-risk profiles.

*Do demographic developments effect crime rates?*

One demographic explanation for changes in crime rates is that the changes occurred in the population groups that were overrepresented in the registered crime statistics, e.g. young men, young people or youngsters of non-native origin, or young people with behavioural problems. Another explanation is that demographic developments, such as changes in ethnic composition or the number of single-parent families, lead to social instability, resulting in less social control and an increase in the number of offenders. According to this last view, demographic changes are indirectly related to changes in crime rates.

Empirical trend studies supported in particular the last perspective. We did not find any studies which demonstrated effects of demographic developments on changes in the crime rates based on an analysis of a natural experiment. Trend studies in which panel data were analysed showed that the proportion of young people, the proportion of young men, or the proportion of young men from minority groups, were related to changes in crime rates. If other factors were taken into account, however, the strength of the relationship decreases, and in some studies, the relationship was entirely absent. It is possible that the proportion of young men or the proportion of young men from minority groups only showed small changes over time, or that other factors – e.g. economic circumstances – provided a more plausible explanation.

*Does substance use effect crime rates?*

Trend studies showed that the use of and trafficking in some types of hard drugs (like crack) coincided with an increase in the number of violent offences. The relationship between hard drugs and violence was confirmed, particularly in America. In addition, a causal effect is found of alcohol use on violent offences at the individual level, in particular when drunken people were provoked. At the macro level, we did not find any trend study that showed an effect of alcohol use on crime rates. A single study even showed that – at the national level – alcohol use does not have any effect at all on developments in crime. It is possible that substance use and crime occur simultaneously in neighbourhoods that are faced with social instability or in situations which tempt people to exhibit risky behaviour, such as nightlife.

*Are there any indications that other social developments effect crime rates?*

Other social developments that were associated with differences in crime rates between contexts were, for instance, a decrease in informal social control or capable guardians, situations where young people were hanging about in the streets, or high-risk behaviour exhibited by young people on a night out. However, we did not find any recent trend studies that examined the effects of these social factors on changes in the crime rates at the macro level.

*Are there any differences in the effects by type of offence?*

The trend studies showed that the relationship between the macro factors and the crime rates differed by type of offence. Some macro factors were more strongly related to changes in the number of violent offences, whereas other factors were more strongly related to changes in property crimes. Macro factors that were associated with changes in property crimes were:

- Imprisonment. Imprisonment is associated with fewer property crimes at the macro level, in particular in the case of selective imprisonment of those who have a higher risk of committing offences. An incapacitation effect is established; a deterrent effect is not demonstrated.
- Youth unemployment among unskilled or less qualified young people. Changes in employment among unskilled or less qualified young people on the fringes of the labour market was found to be related to changes in property crime rates.
- Wages on the fringes of the labour market. An increase in the wages of unskilled or less qualified young people resulted in a decrease in the crime rates, and in particular in property crimes. A decrease in the wages of unskilled or less qualified young people resulted in an increase in property crime rates.

A macro factor that was mainly related to trends in violent crime rates is:

- The use of and trafficking in hard drugs. American studies showed that changes in the use of and trafficking in crack relates with changes in violent crime rates.

Macro factors that showed an effect on crime rates, indifferent of the type of crime, are the following:

- Police levels. An increase in police levels focussed on crime-control efforts in high-risk areas, times or offenders resulted in a greater chance of catching the offender, and had a diminishing effect on crime rates.
- Demographic factors. There appeared to be a positive relationship between the proportion of young men and the proportion of young people of non-native origin, and the trends in crime rates. If other factors are taken into consideration, the relationship becomes weaker or disappears entirely.
- Education. In the short term, an increase in the duration of an educational course provided to young people coincided with a decrease in property crime rates, but also with an increase in the number of violent crime rates.
- Educational level. In the long term, an increase in the educational level was found to have a diminishing effect on crime rates (with the exception of white-collar crime).

On the basis of empirical trend studies, we found that there was still a considerable lack of knowledge about which macro factors could explain trends in the crime rates, irrespective of the type of offences and the data sources used (self-report, victimization survey or police and judicial data). In respect of several economic circumstances and law enforcement factors, it was demonstrated that they influenced developments in crime at the macro level. These effects were primarily seen in marginalised groups in society or in specifically high-risk situations. In addition, there were differences by type of offence. The findings were mainly based on American and several European studies in West-Europe and otherwise.

### **Dutch developments at the national level that might relate to the increase in the number of juvenile suspects of offences**

We examined which developments in the areas of law enforcement and demography, social context and economic circumstances in the Netherlands corresponded with the increase in the number of juvenile suspects in the period of 1997-2007, and the developments in offences of which juveniles were suspected. For this purpose, we compared time series at the national level. On the basis of this empirical study, the best feasible result is that we

were able to identify developments at the national level that could be associated with trends in the number of juvenile suspects. We were also able to identify developments that were less plausible as a possible explanation.

*Which developments provide insufficient indications for a possible explanation for the trends in the number of juvenile suspects or the offences among juvenile suspects?*

*Demography showed limited changes in the period of 1997-2007*

An obvious explanation for the increase in the number of juvenile suspects in the Netherlands would be that the number of young people increased in the period of 1997-2007. The number of young people of 12 to 18 years of age, however, hardly increased at all, and the number of young people of 18 to 25 years of age was more or less stable. Between 1997 and 2007, hardly any changes furthermore occurred in the subpopulations of people running a higher risk of being registered as a suspect of an offence, such as young men or youngsters of non-Western origin. The proportion of young adult men of non-Western origin in larger cities increased, but this increase did not coincide with the increase in the number of juvenile suspects during the entire period. It was furthermore found that the increase in the proportion of suspects among native young people was much stronger than among juveniles of non-Western origin. International studies showed that other factors, such as economic deprivation, provide a more plausible explanation for the changes in the crime rates. If the increase in young men of non-Western origin is actually related to the increase in juvenile suspects, the relationship will be weak at most.

Other demographic changes that may have contributed to social instability as well, such as the number of divorces or residential mobility, only showed a limited change at the national level in the period of 1997-2007. It is not plausible that these macro factors were related to the increase in the number of juvenile suspects in the period of 1997-2007.

It is not plausible that the number of young people with behaviour problems strongly increased in the relevant period. Epidemiological population based studies showed that the proportion of young people with behaviour problems remained the same.

In short: there were insufficient indications that national demographic changes constituted an explanation for the developments in the number of juvenile suspects and the number of offences among juvenile suspects. This does not exclude, however, the possibility that the number of suspects was influenced by demographic changes at the local level or in subgroups.

*Social developments*

There were insufficient indications that – at the national level – social factors, such as high-risk leisure activities or substance use, corresponded to the

increase in the number of juvenile suspects. The time series at the national level did not correspond with the upward trend in the number of juvenile suspects. This does not exclude, however, the possibility that the developments in the subgroups of the population of young people could indeed actually have had an effect. It is, for instance, conceivable that the increase identified in the number of young people with an alcohol addiction is an indication of an increase in the occurrence of problematic behaviour among a subpopulation of young people who also commit aggression-related offences frequently.

*Which developments can be plausible as a possible explanation for the increase in the number of juvenile suspects and the increase in the number of aggression-related offences and traffic offences among juvenile suspects?*

Several developments in macro factors at the national level showed a similar trend as the number of juvenile suspects and the number of aggression-related offences and traffic offences. The increase in the number of aggression-related offences was particular in offences as abuse, threat, vandalism, and disturbance of the public order. The increase in the number of traffic offences was mainly due to drinking and driving.

#### *Selective law enforcement*

It is plausible that the increase in the number of juvenile suspects was related to an increase in selective law enforcement. Offences committed by juvenile offenders have been a key objective of judicial policy and police practice since the mid-eighties of the previous century. Attention was increasingly focussed on high-risk groups of offenders (i.e. juvenile offenders and chronic offenders), specific types of offences (violent offences), and situations in which or times at which the risk of offences being committed is high (hotspots or hot times). This may be an explanation for the increase in the number of registered abuses or threats among juvenile suspects. Increased attention to hotspots may be a possible explanation for the increase in the number of vandalism and offences related to the disturbance of public order among juvenile suspects. The increase in the number of traffic offences among juvenile suspects possibly also relates to the increase in the number of spot checks by the police and the regional traffic law enforcement teams since 2001.

The continued attention to juvenile suspects is a qualitative fact that is difficult to quantify in time series. The empirical support of this view is consequently indirect. In the period of 1997-2007, the chance of violent offences being registered increased, and the Public Prosecution Service and the court imposed more and more sanctions on young people. In addition, international evaluation research revealed that if crime control efforts of the police are founded on high-risk places, times or offenders this can result in a higher

chance of catching offenders. In short: the increase in selective or focussed crime-control efforts is a plausible explanation for the increase in the number of juvenile suspects.

*Decrease of informal control*

Another development that showed a similar trend as the increase in the number of juvenile suspects was a weakening of informal social control, or the decrease in informal guardians in a specific environment. This means that the behaviour of others, both of local residents and people from outside the neighbourhood, had become less regulated and the opportunity to commit offences can increase. In the Netherlands, several indicators of informal social control at the national level seemed to suggest that informal social control has decreased in the course of years. An unexpected finding was, however, that this trend did not correspond with the cyclic trend in property crime rates and drug-related offences.

*Increased density of the number of students in secondary education*

A third development at the national level that showed a similar trend as the increase in the number of juvenile suspects was the increasing density of the number of students in secondary education. This meant that more students attended secondary education and that there was an increase in the number of large schools which resulted in more students per school. In the period of 1997-2007, the number of young people who attended school for a longer period of time before entering the labour market increased. There was also a concentration of young people attending secondary education at large schools. International research revealed that if the duration of the courses attended by young people increases, this is associated with an increase in aggression-related crime rates. If there are more interactions among students and the concentration of students is larger, there are more opportunities in which motivated offenders and potential victims interact, without the presence of noticeable guardians.

In the area of education, we also identified another relevant development, namely increased attention to social security at schools and, more in particular, the introduction of the school constable. The latter did not only result in more formal control at schools, but may also have resulted in an increased chance of catching juvenile offenders.

*Which developments can be plausible as a possible explanation for the cyclic trends in property crimes and drug-related offences among juvenile suspects?*

In the period of 1997-2007, property crimes and drug-related offences among juvenile suspects showed a cyclic trend: a decrease at the beginning, followed by an increase in the middle, and a decrease at the end. We cannot exclude the possibility that demographic or social developments had an effect on

property crime rates among juvenile suspects, but we did not find any indications to prove this.

It is possible that a real change in property crime rates or in the reports by victims of property crimes to the police resulted in a change in property crime rates among juvenile suspects. Victimization surveys showed that after 2002, there was a decrease in the number of victims of property crimes and in the willingness to report this offence to the police. This does not explain, however, why property crime rates among juvenile suspects actually increased between 2000 and 2004. In other words: there is not a clear concordance between the two developments for the entire period of 1997-2007.

#### *Youth unemployment*

The cyclic trend in property crime rates among juvenile suspects corresponds to the trend in unemployment among young people aged between 15 and 25 years of age. In the period of 1997-2007, both time series showed a similar pattern. According to international literature youth unemployment can effect property crime rates in marginalised subgroups of society.

In the period of 1997-2007, the cyclic trend in youth unemployment was also parallel to the trend in drug-related crime rates among juvenile suspects. It is possible that both trends are related. It is conceivable that some young people started searching for illegal activities, for instance in the drug circuit, in order to earn an income due to poor job prospects, or no prospects at all.

#### *Criminal investigation*

Another option is that the cyclic trend in the number of registered drug-related offences among juvenile suspects is related to changes in the focus of crime-control efforts, and in particular the criminal investigation of drug couriers at Amsterdam Airport Schiphol.

### **Limitation of the study**

For the purpose of the literature study, we selected trend studies that had such a methodological design that they at least showed a relationship between a macro factor and crime. Trend studies with an (quasi-)experimental design also indicated effects at the macro level. But the literature study had a number of limitations. The majority of the trend studies had a high aggregation level: the units used for reporting were states, regions, or cities or towns. This means that local variations, such as local economic circumstances or local policies pursued by police forces, may have played major roles which have remained hidden as a result of the design of the study. In addition, the results relate in particular to international studies. We do not know to what extent these studies are representative for the situation in the Netherlands.

Some limitations of the empirical study should also be addressed. In this study, we mainly used the data registered by the institutions. Sometimes, there was either underregistration or overregistration. In addition, we cannot identify macro factors that explain the increase in the number of juvenile suspects only on the basis of the comparison of time series. This method makes it possible to identify specific macro factors as less plausible and, at most, to indicate a possible relationship between factors and the development in the number of juvenile suspects. The comparison was made at the national level, as a result of which local variations may have remained hidden, just as developments in specific subgroups. Other contextual characteristics that may have influenced the developments in crime may also have been disregarded.

Although there were several limitations to the study, it is not likely that these limitations have affected the outcomes. The literature study was composed of studies with high-quality study designs. This indicates that it is very likely that the relationships that emerged from the literature review are correct. The literature study revealed that there are still many 'blank spaces' in our knowledge of underlying social causes as explanation for the developments in registered juvenile crime. It was furthermore revealed that changes in registered crime were primarily the result of developments in subpopulations, specific areas, or specific policy. As far as we know, the empirical study as has been performed in the present study is the first Dutch study which has systematically related social developments in multiple areas to trends in the number of juvenile suspects and the offences of which they were suspected. This study showed that other social developments could possibly provide an explanation for the annual increase in the number of juvenile suspects up to 2007, rather than solely considering the priorities set by the police or in judicial policy.

## **Conclusion**

The question of which social developments can provide an explanation for the increase in the number of juvenile suspects in the Netherlands in the period of 1997-2007 cannot be answered easily. The most important reason for this is that there are hardly any Dutch studies that have a similar methodological design which is able to analyse whether statements are valid about the effects of social developments on the crime rate and the number of juvenile suspects. This also applies to this empirical study. In the present study we succeeded in obtaining an initial indication for the Netherlands with respect to which developments at the national level might possibly be related to the developments in the number of juvenile suspects or the offences among juvenile suspects, and which developments are less plausible.

National developments that are possibly related to the increase in the number of juvenile suspects, and in particular the number of suspects of aggression-related offences, are an increase in selective law enforcement, a decrease in informal social control, or an increase in density of the number of students attending secondary education. We furthermore identified a possible relationship between the cyclic trends in property crime rates and drug-related offences among juvenile suspects and youth unemployment. To our opinion it is not likely that demographic developments or social developments with regard to, for instance, the behaviour exhibited by young people going out at night or the substance use at the national level are related to the development in the number of juvenile suspects or to the offences among juvenile suspects.